CONFERENCE ON PARTIAL LARYNGECTOMY FOR CARCINOMA OF THE LARYNX*

Introduction

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SINCE the performance of the initial total laryngectomy by Christian A. T. Billroth in 1874, attempts at preserving laryngeal function in the surgical treatment of carcinoma of the larynx have been considered. In the surgical treatment of carcinoma of the larynx the all-important objective must necessarily be complete eradication of the tumor. Total laryngectomy and extensive resection of the lymph nodes is sometimes essential to effect a cure. Preservation of laryngeal function with maintenance of an intact airway is less important than total extirpation of the tumor. However, in selected cases of carcinoma of the larynx, the neoplasm can be removed completely and laryngeal function can be preserved without much, if any, additional risk of local recurrence. The preservation of laryngeal function in individual cases depends on the location of the tumor and the extent of invasion. Selectivity of cases is of prime importance.

Cordal carcinomas limited to the anterior or membranous portion of the vocal cord are eminently suitable for radiotherapy and have a high incidence of curability. This is the preferred method where sophisticated radiotherapy is available. Cordectomy via thyrotomy gives equally good results but a poorer voice. One must consider conservation of laryngeal function even after a failure of radiotherapy in cordal carcinoma, in those instances in which the primary lesion was suitable for cordectomy before radiotherapy was instituted.

From a surgical point of view the larynx may be divided into a supraglottic structure, a cordal area, and an infraglottic or subglottic

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division. The supraglottic structure includes the laryngeal surface of the epiglottis down to the anterior commissure, the medial wall of the aryepiglottic folds up to the arytenoid, and the upper surface and the entire area of the ventricle above the upper surface of the true vocal cord. Carcinoma limited to this area can be treated successfully by subtotal horizontal laryngectomy with preservation of laryngeal function. For lesions measuring 2 cm. or more, an elective dissection of the neck may be indicated.

As mentioned before, cordal carcinoma confined to the membranous portion is eminently suitable for cure by radiotherapy. However, experience has shown that lesions involving the anterior half or both vocal cords—so called horseshoe lesions—have not yielded a high percentage of successful cures by radiotherapy per se. Bilateral thyrotomy and excision of the anterior half or two thirds of both vocal cords, in continuity, may give safe margins in these horseshoe lesions and may produce a cure in some 75% of the cases. Provision must be made for the prevention of stricture or stenosis of the larynx by plastic procedure or by the insertion of a MacNaught keel. Dr. George Petti, Jr. will discuss this phase.

Cordal carcinoma that extends posteriorly to the vocal process of the arytenoid or along the upper surface of the cord into the ventricle may be treated by so-called hemilaryngectomy with preservation of laryngeal function. Extension of cordal carcinoma to the arytenoid again yields a relatively low incidence of cure by radiotherapy and is probably best treated by vertical hemilaryngectomy. In these cases the arytenoid is most often removed in continuity with the true cord, ventricle, and false cord with the ipsolateral thyroid cartilage. In isolated instances replacement of the arytenoid by various tissues can be performed in order to enhance deglutition and ensure against aspiration pneumonia, especially in older patients. Dr. Stanley M. Blaugrund will discuss this phase.

It should be pointed out that in cordal carcinoma cure by limited surgery after radiotherapy may still be obtained in isolated instances. It is imperative that the extent of the lesion be determined prior to treatment by radiation so that any persistence of tumor can be treated by partial laryngectomy in the large majority of such instances.